# CITY OF KENT POSITION DESCRIPTION

Position Inventory Number: PW0598			
Classification Specification: CONTROL CENTER TECHNICIAN			
Salary Range: TM 31			
Position Description: Control Center Technician			
Incumbent:			
Location: Public Works/Operations – Water Division			

#### **GENERAL PURPOSE:**

Under the direction of the Field Supervisor, the incumbent troubleshoots, repairs, maintains and installs various types of control, communication and supervisory control/monitoring equipment for the City of Kent Water Division in order to ensure there is an adequate, safe supply of water. The incumbent is also responsible for a variety of other highly skilled tasks and projects necessary to improve maintain and repair city water sources, pump stations, reservoirs and other facilities and appurtenances.

Work is characterized by specialized technical responsibilities necessary to ensure the water supply can be appropriately monitored for quantity and quality, by the installation, maintenance and repair of sensitive monitoring equipment that must be routinely monitored and calibrated, and by research on and development of equipment for the division. Work is also characterized by a substantial volume of highly skilled tasks including: skilled operation, maintenance and repair of all water facilities and equipment such as telemetry and control equipment, electrical and generator equipment, motors, pumps, valves and valve operators, as well as other related equipment and occasionally chemical feed equipment. Routinely works with or directs the work of consultants, contractors and small crews providing direction and leadership, as well as training other personnel.

Supervisor provides the employee with assignments in terms of broad practice, precedents, policies and goals. Work may be reviewed for fulfillment of program objectives and conformance with departmental policy, practice and/or objectives.

## **ESSENTIAL DUTIES AND RESPONSIBILITIES:**

Program, install and troubleshoot code in programmable logic controllers to ensure proper start/stop/run and alarm sequences, as well as for mechanical, electrical and communication equipment. Identify and correct difficult problems

with electrical control systems, supervisory control and data acquisition (SCADA) and telemetry systems and other types of electrical equipment.

Research and develop new electrical and control circuits, review and update equipment for status control and display, install various analog displays such as flow meters, system pressure and tank level indicators, as well as position indicators for supervisory control and monitoring.

Assist contractors and consultants with maintenance and development of new or existing systems such as programmable logic controllers (PLC), remote telemetry units and SCADA components, emergency power generation, motor and control equipment, as well as other systems and appurtenances.

Operate, troubleshoot, repair, maintain and also calibrate all types of electrical and control equipment such as electric motors, variable frequency drives, sensing and measuring devices, PLC's, alarm systems, utility power and emergency power systems, as well as all types of mechanical equipment and appurtenances such as pumps, engines, hydraulic and electric control valves, piping components, reservoirs, buildings and equipment, and chemical feed systems.

Research and develop maintenance programs for testing all of these types of equipment, including variable frequency drives, and for calibrating control devices and equipment associated with process loops and supervisory control systems.

Identify, setup, and manage several projects or programs that are in areas of expertise or knowledge. Responsibility may include directing or assisting in the work of contractors, consultants and small crews of city staff to ensure that the work is performed efficiently and correctly.

Produces and maintains accurate records and documentation for assigned projects and programs, including budgets and expenditures. Prepare and submit recommendations/requests for system improvements and other programs and projects.

Support Public Works Operations personnel in maintaining and troubleshooting electrical, mechanical and telemetry equipment.

Train less experienced personnel on electrical, control, mechanical and programmable logic controller technical tasks and procedures.

Continue to receive training in all areas of knowledge and responsibility, such as supervisory control and data system design; in order to remain current in fields of specialty.

Assist the field supervisor in scheduling, directing work or leading small work crews as necessary, performing work as a leadworker.

Become familiar with, follow, and actively support the vision, mission, values and behavior statements of the department and the City.

## PERIPHERAL DUTIES:

Perform related duties as assigned.

# KNOWLEDGE, SKILLS AND ABILITIES:

#### KNOWLEDGE OF:

- Highly skilled mechanical, electrical and computer procedures necessary to perform the functions of this position
- Specialized codes and regulations in electrical codes and ability to install equipment and circuit safety and correctly, as well as supervising the work of others
- Hydraulics and methods of operating water systems, pressure zones, and hydraulic equipment
- Work hazards and applicable safety precautions including electrical energy and confined space safety
- Interpersonal skills using tact, patience and courtesy
- Record keeping techniques
- Methods, tools, equipment, and materials used in the operation, maintenance and repair of City facilities, including hand and power tools, electrical meters and meggers, micrometers, dial gauges, calipers, laptop computers

#### SKILLED IN:

- Troubleshooting and performing repairs on all types of water facility equipment, with a high degree of skill in their areas of expertise.
- Communicating technical aspects of tasks in understandable terms
- Technical reading and writing
- Effective use of interpersonal skills in a tactful, patient and courteous manner

## **ABILITY TO:**

• Show a high level of initiative and resourcefulness in completing projects and assigned tasks in a timely manner

- Understand programmable controllers with their logic diagrams and programs, and resolve associated problems easily
- Restructure PLC programs to enhance control systems and create new PID processes
- Establish and maintain effective working relationships with employees and the general public
- Work in confined spaces, on elevated reservoirs and work sites and in hazardous environments using appropriate safety equipment
- Read and understand logic and electrical schematics, telemetered data and trends, maps, blueprints, maintenance manuals and internet information, and other types of guidance documents and specifications
- Easily and quickly learn and utilize procedures and practices necessary to complete tasks with minimal assistance
- Calculate volumes, efficiency of motors and pumps, flow rates, chemical dosages and other mathematical problems
- Occasionally operate backhoe, loaders and truck/trailer combinations
- Sit, stand, climb, lift, and/or kneel for extended time periods
- Safely lift up to 75 pounds routinely, up to and including 100 pounds occasionally unassisted, and more than 100 pounds with assistance
- Occasionally operate Water Treatment Plant

## **EDUCATION AND EXPERIENCE REQUIRED:**

Education: Associate Degree or two years of college level course work in an electrical specialty with emphasis on control systems, and

Experience: Four (4) years of specialized water experience at a Maintenance Worker 4 or higher level is required. Two years of experience in one or more areas requiring highly technical skills and abilities, such as electrical and control/telemetry repairs, technical project management, and PLC modifications. Related technical school or college level education at the journeyman level may be substituted for up to 1 year of the required experience.

Or: In place of the above requirement, the incumbent may possess any combination of relevant education and experience which would demonstrate the individual's knowledge, skill and ability to perform the essential duties and responsibilities listed above.

## LICENSES AND OTHER REQUIREMENTS:

- Valid Washington State Driver's License, or ability to obtain within 30 days of employment
- Commercial Driver's License (CDL) Class A or B with airbrake and tanker

endorsements within 6 months of employment

- Successful completion of the City's Defensive Driving Course within 6 months of employment
- Valid Traffic Control Flagging Card within 6 months of employment
- Valid First Aid/CPR Card within 6 months of employment
- Washington State Water Distribution Manager 2 within 6 months of employment
- Washington State Water Treatment Plant Operator in Training certification
- Washington State Water Treatment Plant Operator 1 certification within 12 months of employment
- Cross Connection Specialist I certification within 6 months of employment
- Successful completion of Fall Protection training within 6 months of employment
- New employees must successfully pass the City's pre-employment driver's records check and all employees must maintain an excellent driving record
- New employees must successfully pass the City's pre-employment substance abuse screening and physical agility test

#### WORKING CONDITIONS:

Works out of doors travelling by City vehicle, from site to site several times each day; Incumbent may be exposed to inclement weather conditions such as rain, sun, and snow. Incumbent may also be exposed to extreme noise while operating heavy machinery or working on equipment. Work is regularly performed in confined spaces, on elevated reservoirs, and in hazardous environments. Also works indoors at a desk or counter for extended periods of time, using a computer, other office equipment, test equipment and machinery.

Subject to call-out after normal work hours for emergency work. May be required to carry a pager after hours and on weekends. May be required to work alone during work hours or during emergency call-outs after hours.

## MACHINES, TOOLS AND EQUIPMENT USED:

Typical business office machinery and equipment including but not limited to personal computer, laptop computer, telephone, fax and copy machine.

Uses standard and specialized hand and power machines, tools and equipment including but not limited to submersible pumps, variable frequency drives, power generators, air compressors, radio frequency transmitters, flow meters, programmable logic controller, volt and OHM meters and electrical installation tools. Also uses wrenches, screwdrivers, hammers and assorted hand tools, as well as drill motors, cutting tools, and other air/electric motor operated tools for installation/repair of equipment and machinery.

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Motorized vehicles including but not limited to pick-up truck, service truck, Class A combination vehicles and occasional use of backhoe and various excavation equipment.

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to use arms, hands and fingers to handle, feel, or operate objects, materials, tools, equipment or controls; reach with hands and arms; talk; and hear normally. The employee is frequently required to stand; walk; stoop, kneel, crouch, and crawl. The employee is occasionally required to sit and climb or balance. The employee must regularly lift and/or move up to 50 pounds, frequently lift and/or move up to 80 pounds, and occasionally lift and/or move up to and including 100 pounds. May be required to lift and/or move more than 100 pounds with assistance.

Specific vision abilities required by this job include close, distance, color, and peripheral vision; depth perception; and the ability to adjust focus.

SIGNATURES:			
Incumbent's Signature	Date	Supervisor's Signature	Date
Approval:			
Department Director/Designee	Date	Employee Services Director/Designee Date	

\*\* Note:

This document will be reviewed and updated annually at the time of the employee's performance appraisal; when this position becomes vacant; or, if the duties of this position are changed significantly.

Rev. 12/24/03